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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,895	02/23/2004	Zhenya Alexander Yourlo	NPS046US	5956

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EXAMINER

LEYKIN, RITA

ART UNIT PAPER NUMBER

2837

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/782,895

Applicant(s)

YOURLO ET AL.

Examiner

Rita Leykin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/17/04, 11/22/04</u> . | 6) <input checked="" type="checkbox"/> Other: <u>IDS dated 02/23/05</u> . |

DETAILED ACTION

This office action is in response to arguments submitted on 08/15/05.

Applicant's arguments related to the absence in the prior art teaching by Watts, Jr. of claimed limitations such as "sensed device that sensed encoded data" and "a surface with coded data thereon or therein". The arguments have been considered, however, found not persuasive. In Watts, Jr. apparatus a mid-level platform 3 is provided with a rotary positioning table 45 that is capable of accurate angular positioning through 360 degrees range, a right track motor drive 35 and left track motor drive 34, wherein a feed forward and feed-back method is used. The rotary positioning table 45 is equipped with a micro-stepping motor and a rotary encoder. As it stated in the prior office action, in Watts, Jr. teaching, robot **locates** and treats the coordinates with emission means. The usage of sensing device for detection of at least some of the coded data is inherent to Watts, Jr. teaching, and wherein the coordinates have been interpreted as a coded data.

Hence, the claimed sensing device is inherent to Watts Jr. teaching.

Also in response to arguments additional search of prior art has been conducted. The search shows that sensing device, which senses coded data and generates indicating data indicative of a position of the robot on the surface, where in the detected data is communicated to a computer is well known in the art. Applicant is invited to review prior art document cited by the examiner and attached to this final office action in form PT0-892 by Lapstun et al. US # 6,797,895. Lapstun et al. disclose an orientation sensing device with memory, for generating an orientation data when positioned or

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moved relative to a surface. The surface having coded data disposed upon it. When sensed, by sensing device, the orientation data is being indicative of a position of the device relative to a surface. Lapstun et al. also disclose communication means configured to communicate the orientation data to a computer system.

Examiner maintains the rejection as follows.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 5, 8, 10, 11, 16, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Watts, Jr. US # 5,453,931.

Watts, Jr. discloses a navigation robot that is producing physical layout and reference lines or performing work on a plane surface. The mobile robot has an onboard computer, a navigation system and an emission system. The robot is provided with drive tracks 61 and/or wheels 62 that can be programmed directly or remotely. Robot locates and treats the coordinates with emission means, such as an ink jet type marking system, as in claim 8, (see abstract, col. 1, lines 7-13, col. 2, lines 9-26, col. 8, lines 44-67, col. 11, lines 17-28, col. 12, lines 16-21, 42, 43). See col. 3, lines 28, 45-58, col. 4, lines 4-24, line 45 for the claimed communication means for transmitting data to a computer and to receive movement instruction.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watts, Jr. US # 5,453,931 and Wright et al. US # 4,864,618.

The limitations of the base claim discussed above in the Watts, Jr. rejection. Watts, Jr. does not teach a print-head attached to or held by robot. However, Wright et al. in abstract teach a terminal that contains a modular printer unit, which has a print-head, and a microprocessor physically permanently bonded together, that also includes supply of ink.

Hence, it has been obvious to one of ordinary skills in the art, at the time invention was made to attach a print-head as disclosed by Wright et al. to marking device as in Watts, Jr. to provide for marking of surface.

The reason is to support program for printing marks.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6, 9, 12, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watts, Jr. US # 5,453,931 and Luzon et al. US # 5,652,412.

The rejection of limitations of the base claims 1 and 18 presented above. Watts, Jr. does not teach specifically memory associated with marking device, vector mode operation, and a coded data. However, Lazzouni et al. disclose a pen and paper information recording system having a recording unit wherein a data input device for recording information in a memory simultaneously with writing on encoded paper. Wherein the apparatus is provided with reading and storing coordinate information representative of the instantaneous position of a pen on a writing surface and wherein the writing paper having a prerecorded pattern of pixels, each pixel containing encoded location information, which identifies an absolute and unique coordinate location of the paper. Wherein, an information input system provides for simultaneously recording written information on encoded paper and recording the written information in the memory, (see column 2, lines 18-31). The vector mode operation as in claim 9 discussed in col. 11, lines 53-67, col. 12, lines 1-67, col. 13, lines 1-11).

Hence, it has been obvious to one of ordinary skills in the art, at the time invention was made to use Lazzouni et al. teaching on storing coded information and translate it in vector mode operation in relation to Watts, Jr. device to operate movement of pen on the surface.

The reason is to provide for continuous reading and control of robot operation.

Claim Rejections - 35 USC § 103

2. Claims 5, 7 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watts, Jr. US # 5,453,931 and Cass US # 5,692,073 and Macri et al. US # 6,220,865.

The rejection of the base claim 1 by prior document to Watts, Jr. is discussed in the paragraph above. Watts, Jr. does not teach characteristic of the marking device determined by a user activating a hyperlink on the surface using the robot. Also Watts, Jr. does not teach a claimed identifier in plurality of robots, as in claim 13. However, Cass teaches that web pages are active documents that can be linked to each other through hyper-text links that provides reference from one web page to another. Also Cass teaches a universal resource locator URL as a unique identifier, (see col. 15, lines 40-67, col. 1-23). The multiple robot system presented in Macri et al. teaching, see col. 13, lines 17-21.

Hence, it has been obvious to one of ordinary skills in the art, at the time invention was made to add to Watts, Jr. system the teaching of Cass's on electronic reading of scanned information related to decoding a barcode and hyperlink activation to distinguish one system from another as in case where multiple robot system is used such as in Macri et al. teaching.

The reason is to control multiple operators and provide commands related to a specific operator according to task.

3. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watts, Jr. US # 5,453,931 and Dougherty et al. US # 6,076,734.

Watts, Jr. do not teach specifically wireless transmission of signal. However, Dougherty et al. teach remote data transmission, in computer human data interface, see abstract.

Hence, it has been obvious to one of ordinary skills in the art, at the time invention was made to control the operation of robot via wireless (remote) command. Examiner takes an official notice that many different devices can be used to receive/transmit the data and that includes a relay device, as in claim 15. The reason is dictated by a design choice.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita Leykin whose telephone number is (571)272-2066. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571)272-2800, ext.33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

R.L.

Rita Leykin
Primary Examiner
Art Unit 2837

